The California Debt and Investment Advisory Commission

presents

Fundamentals of Debt Financing

FUNDAMENTALS OF A BOND SALE:

Critical Terms and Concepts

Outline of Remarks

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Overview of the Presentation

What we'll cover today:

- Factors affecting the interest rates you pay on your bonds
- The various prices at which your bonds are sold
- The "system" of wholesalers, middlemen and investors
- Markets and uncertainty

What we won't cover:

- Creating the credit (i.e., designing the bond issue)
- The financial "engineering" *i.e.,* structuring the loan
- Bond math; already covered

Factors Affecting Bond Prices

- Taxable yield equivalent
  - Not what you "get" but what you get to "keep" is important
- General economic conditions and inflation
  - What is the "Fed" doing, and why?
  - What is the state of the economy, both local and national
- Supply and demand
  - With some considerations of the effects of market uncertainty, "marginal" pricing, and other matters
- Secondary market liquidity
  - Your buyer does care if these things can be re-sold
- Security and ratings
  - It's an "A" rated world, after all

The Cast of Players

- Investors:
  - Direct:
    - banks
    - insurance companies
    - corporations
    - individuals
    - traders
  - Indirect
    - trust departments
    - mutual funds
    - Investment counselors

- Broker/Dealers:
  - wire houses
  - “classic” investment banks
  - commercial banks
  - “specialty” shops
  - brokers only

How the Bonds Get There

- Types of sale:
  - public
  - private
- Methods of sale:
  - advertised (competitive)
  - negotiated

- Public sale:
  - terms set in advance
  - available to all (theoretically)
- Private sale (placement):
  - limited numbers
  - investor sets terms (typical)

- Advertised:
  - best bid; underwriter unknown until sale date
- Negotiated:
  - underwriter selected in advance of sale date

How to Choose

- Negotiated sale:
  - complex issues
  - volatile market conditions
  - allows change of structure and terms during the offering process
  - flexibility in timing of marketing
  - tailored underwriting syndicate
  - pre-sale marketing activity
- Advertised sale:
  - well-known credits and issuers
  - stable markets
  - highly rated issues
  - emphasizes "commodity" nature of bonds

Primary Role of the Underwriter

- Buy at wholesale

- Sell at retail

Some others:

Structuring advice

Rating assistance

Investor relations

Other

What is a "Syndicate" and What Does it Do?

- Syndicate: a collection of underwriters that is created for the purpose of attenuating market risk
- The syndicate's "managers," "co-managers," and "members" are all part of the equation
- "Running the books" and why it's so important to an individual underwriter
- Participations and liabilities
- What's the difference between a selling group and a syndicate?
- Can an underwriter act "alone" instead of in a syndicate?

Prices and Yields Move Inversely

- The higher the yield (for a fixed interest rate) the lower the price for that bond; and vice-versa . . .
- Once yields are established, they remain constant – usually for the life of the loan
  - We are not considering variable rate borrowings here, a topic for another day
- Buyers seek to protect themselves from adverse changes in the value (read: price) of their investments

How Bond Prices Are Quoted

- "Dollar" basis = stated as percent of par value
- "Yield" basis = assumes "priced to yield"

<u>Examples:</u>

#1	California 4's of '22 @ 98.75% ("dollar" basis)
#2	California 6½'s of '13 @ 4.60 yield ("yield" basis)

Note: *Relative change in dollar price is related both to length of term to maturity <u>and</u> to general level of interest rates.*

The Difference Between "Yield" and "Spread"

- Underwriting spread is one of the most over-rated measures of your negotiating skills
  - What matters to investors is yield; therefore, a sale at a higher yield is an "easier" sale
- What matters to issuers is the overall cost
  - The "quality" of the distribution is also important
- You pay spread "once" but you pay higher interest rates for the life of the loan
- You can "save" thousands on the spread, but "spend" tens of thousands on higher rates

Various Prices At Which Bond Is Sold

- Primary (bid) price:
  - price paid by wholesaler (the underwriter or the syndicate) to the issuer
- Retail offering price:
  - price paid by final investor to a "dealer" who is either a member of the syndicate or has purchased bonds from a member
- Concession allowed:
  - price paid by "non-member" dealer to the wholesaler (underwriter or syndicate)
- Takedown allowed:
  - price paid by syndicate member to wholesaler (underwriting syndicate)

An Example of Profit Allocation

Example:

- Underwriting syndicate buys bonds with 6% coupon (interest rate) due in the year 2034 @ 98%
- Member buys the bonds from the syndicate @ 99%, <u>or</u>
- Non-member buys the bonds from the syndicate @ 99 ½%, and then
- Re-sells the bonds to final investor @ 100% (a “6% yield”)

Note: <u>Each sale has a different price and different split, but the investor still pays the same retail price</u>. That’s why it’s so important to focus first on that price, then work “backwards” to the “right” spread.

How the Profit Spread Gets Divided

Issuer sells bonds to underwriter

(Issuer's rates now fixed)

Underwriter/syndicate buys bonds from issuer

(Underwriter or syndicate now "at risk")

Member takes down bonds from syndicate account

(Syndicate makes underwriting spread)

Member sells bonds to:

Investor (or to non-member dealer)

(Member makes additional takedown in case of sale to non-member; both concession and add'l takedown in case of sale to investor)

Non-member dealer sells bonds to investor

Investor

Some Basic Truths About Buyers

- Individual *vs*. institutional buyers
  - individuals: buy small size, usually <u>not very sensitive</u> to rates, don't decide quickly
  - institutional: buy large size, <u>very</u> sensitive to rates
- Accessing them is not as easy at it looks . . .
  - First, you have to have the right "product" to fill the investment need
  - Then you need the right level of uncertainty to avoid them exercising the "luxury of time"
  - Finally, your underwriter must know who they are and how to get to them most efficiently

Markets and Uncertainty

- Markets are always uncertain
  - If they weren't, we'd all buy the "right" thing today, then retire without worry tomorrow
- Markets are the places where buyers and sellers "measure" (and price) uncertainty
  - Markets function to discount risk (or reward it) in a timely fashion
- Uncertainty brings a "negative" bias to the market, whether for bonds, houses, oil, etc.
  - Discussed next

Why Uncertainty Produces "Negative" Market Bias

- First, there's "marginal pricing"
  - If there are 100 "x" for sale, and there is an order to buy 100 "x" then the price of "x" will likely not change
  - Now, consider what happens if there are 1,000 "x" for sale, and orders to buy only 800 "x" exist
    - that will likely produce a lower price for "x"
    - it could be argued that "only" 200 "x" affected the price of all 1,000 "x"
    - that's "marginal pricing" – and it is very important to you as a seller!

Why Uncertainty Produces "Negative" Market Bias – 2

- Next, there's a fundamental difference between "buyers" and "sellers"
  - Buyers can choose when to buy – they are said to have the "luxury of time" on their side
  - Sellers, on the other hand, usually don't have the luxury of time – there's a project to be built, an expenditure that must be made, an expectation that something needs to happen, sooner rather than later
    - Remember that for you, as a seller, selling bonds is an adjunct to doing something else—like the project itself

Why Uncertainty Produces "Negative" Market Bias – 3

- That's why uncertainty causes markets to trade lower (*read:* lower prices, higher yields)
- When you have bonds "for sale" and potential buyers have money to invest, they have the luxury of time and you don't!
- So . . . . in a pinch, they can simply "wait it out" until you desperately need the money, or the uncertainty diminishes!

How to Identify Market Trends

- Technical vs. fundamental factors
  - Technical = supply and demand – are "buyers and sellers" in balance or not?
  - Fundamental = economics and interest rates – what is the Fed doing and why?
- Forward supply
  - Current inventory (what's currently for sale)
  - Visible supply ("snapshot" of what's coming in next 30 days) (introduces more uncertainty!)
- Distribution of issues in market – or what the buyers are comparing you to!
  - by rating
  - by region or state
  - by size

Measures of Borrowing Cost

- Net Interest Cost:
  - Defined: total amount of interest paid over the life of the loan divided by the average number of bonds
  - encourages “front loading”
- True Interest Cost:
  - Defined: total amount of debt service paid over the life of the loan, discounted to a “present value”
  - measures “time value” of payment stream

Remember: for any given NIC, the TIC is lower the less frequently that larger coupons are placed on earlier maturities

The Secondary Market <u>Is</u> Important

- Visibility:
  - the more buyers see your name, the more likely they will be to assume future liquidity in your issues
- Presence:
  - familiarity breeds acceptance, not contempt!
- Indicative of how you're doing on other matters:
  - economy
  - financial operations
  - Management
- <u>You want demand to "percolate" up from your past buyers for future issues</u>

Some Useful Terms to Know

- A.O.N.
- Basis point
- Basis price (or basis)
- Bond, a (as a unit of measurement)
- Concession
- Coupon
- Dealer
- Designated
- Discount
- Dollar bond
- Going away
- Group
- High grade
- Joint manager
- Manager(s)
- Net price
- Order period
- Par
- Point (not the same as “basis point”)
- Premium
- Production
- Reoffering
- Restriction, price or syndicate
- Spread
- Stock
- Takedown
- Taxable equivalent
- Term bonds
- W.I. (or W.A.I.I.)
- .05 (or “A Nickel”)

Questions and Discussion